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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/595,410  | 06/16/2000  | Hu Yang              | 2039.007400         | 1569             |
| 23720   | 7590        | 04/23/2004           | EXAMINER            |                  |
| WILLIAMS, MORGAN & AMERSON, P.C.<br>10333 RICHMOND, SUITE 1100<br>HOUSTON, TX 77042 |             |                      | MULLIS, JEFFREY C   |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 1711                |                  |

DATE MAILED: 04/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/595,410

Applicant(s)

YANG ET AL.

Examiner

Jeffrey C. Mullis

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 7-23, 26-44, 46-51, 54-62 and 65-78 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 59 is/are allowed.
- 6) ☒ Claim(s) 1-4, 12-23, 31-44, 46-51, 60-62 and 65-71 is/are rejected.
- 7) ☒ Claim(s) 7-11, 26-30, 54-58 and 72-78 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 803.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit 1711

All remaining rejections and/or objections follow.

Claims 4, 23, 51 and 62 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

The species of the above claims lack antecedent basis in any preceding claim and are therefore unclear.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --  
(e) The invention was described in (1) an application for patent, published under Section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which

Art Unit 1711  
the invention was made.

Claims 60-61, 68, 69, 70 and 71 are rejected under 35 U.S.C. § 102(e) as being anticipated by Gauthier et al. (U.S. 6,313,241).

Gauthier et al. disclose numerous examples of ethylene/vinyl cyclohexene copolymers in their Examples. Note that films were co-extruded with the polymers in column 24 lines 24-25 to laminate the polymers with materials such as inherently oxygen barrier polymers such as ethylene vinyl alcohol in Example 37.

Claims 1-3, 12-22, 31-44, 46-51, 60-62 and 65-71 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Gauthier et al. (USP 6,143,197).

Gauthier in Example 1 and Example 2 disclose production of ethylene/vinyl cyclohexene films. The vinyl cyclohexene polymers may be combined with barrier polymers column 7 line 35. The polymers are disclosed to be oxygen scavenging and may contain a metal catalyst at column 8 lines 10-16. Photoinitiators may be added such as those of applicants at column 6 lines 1-30.

There are no specific examples containing barrier polymer as well as applicants' specific oxygen scavenging polymer and photoinitiator although Gauthier et al. discloses that all three may be used in combination.

Therefore it would have been obvious to a practitioner having ordinary skill in the art at the time of the invention to utilize applicants' embodiment of specific oxygen scavenging

Art Unit 1711

polymer, barrier polymer and catalyst as well as photoinitiator in the expectation of adequate results absent any showing of surprising or unexpected results.

Claims 4, 23, 51 and 62 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Matthews et al. (U.S. 6,254,804).

Matthews et al. disclose compositions containing polymers with barrier properties such as polyethylene terephthalate (note the paragraph bridging columns 10 and 11) in combination with polymers such as oxygen scavenging polymers at column 7 lines 9-15 which are polyesters derived from 3-cyclohexene-1,1-dimethanol. Although no examples exist of applicants' combination of materials, patentees disclose that scavenging polymers including those of applicants may be combined with polymers such as barrier polymers and therefore it would have been obvious to a practitioner having ordinary skill in the art at the time of the invention to choose such an embodiment from Matthews in the expectation of adequate results absent any showing of surprising or unexpected results.

Claims 4, 23, 51 and 62 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ching et al. (U.S. 6,454,965).

Ching et al. discloses the production of a polyester formed from 3-cyclohexene-1,1-dimethanol in Example 4. The composition may be a multilayered one containing layers of materials such as

Art Unit 1711

those containing oxygen barrier polymers such as polyethylene terephthalate at column 3 lines 38-47. Other oxygen barrier polymers such as ethylene vinyl alcohol may also be used at column 4 lines 40-45.

There are no specific examples of combinations of materials of applicants' claims although Ching et al. discloses that combinations of such materials may be used. Therefore it would have been obvious to a practitioner having ordinary skill in the art at the time of the invention to choose applicants' embodiments from Ching et al. in the expectation of adequate results absent any showing of surprising or unexpected results.

The terminal disclaimer filed on 2-3-04 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 6,525,123 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claims 7-11, 26-30, 54-58 and 72-78 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

This Office action is not being made FINAL.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Mullis whose telephone number is (571) 272-1075. The examiner

Serial No. 09/595,410

-6-

Art Unit 1711

can normally be reached on Monday-Friday from 9:30 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on (571) 272-1078. The fax phone number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-0994.

J. Mullis:cdc

April 20, 2004

J. Mullis  
Primary Examiner  
Art Unit 1711

